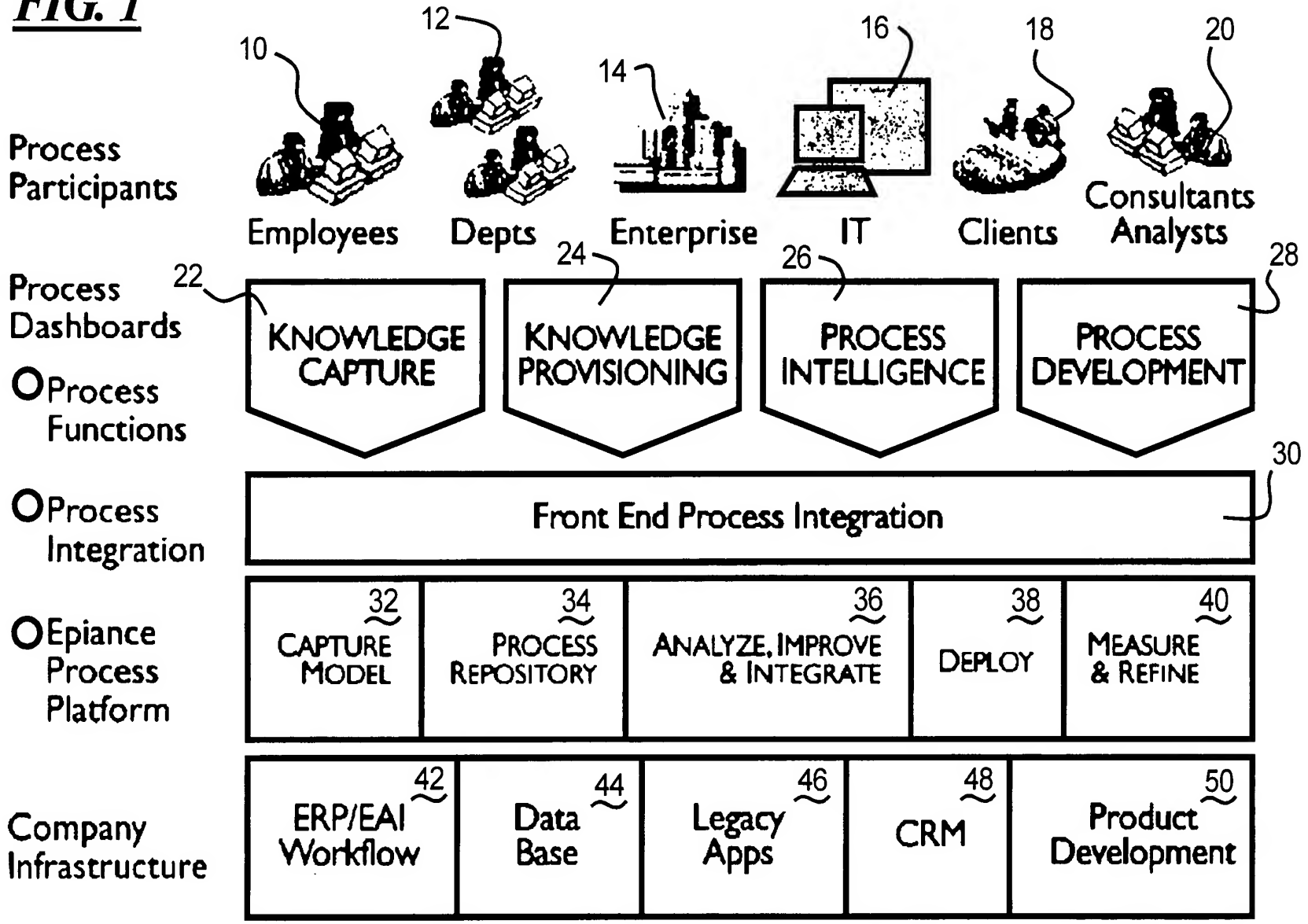
PATENT & TRADEMARK OFFICE
JUL 02 2004
OIPE
JC71

FIG. 1



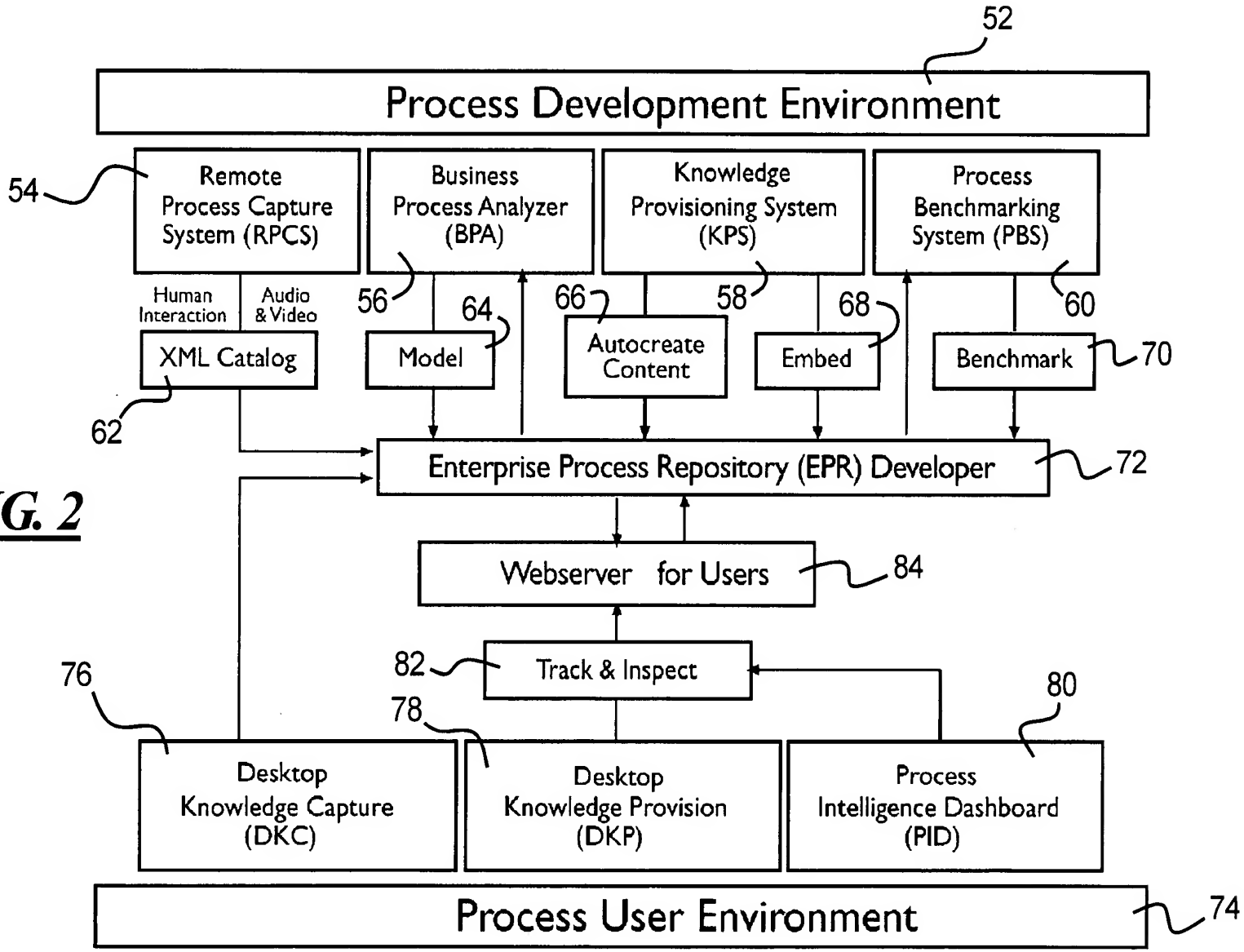

52
Process Development Environment
54
Remote Process Capture System (RPCS)
Business Process Analyzer (BPA)
Knowledge Provisioning System (KPS)
Process Benchmarking System (PBS)
Human Interaction
Audio & Video
56
64
66
58
68
60
XML Catalog
Model
Autocreate Content
Embed
Benchmark
70
62
Enterprise Process Repository (EPR) Developer
72
Webserver for Users
84
82
Track & Inspect
76
78
80
Desktop Knowledge Capture (DKC)
Desktop Knowledge Provision (DKP)
Process Intelligence Dashboard (PID)
Process User Environment
74

FIG. 2

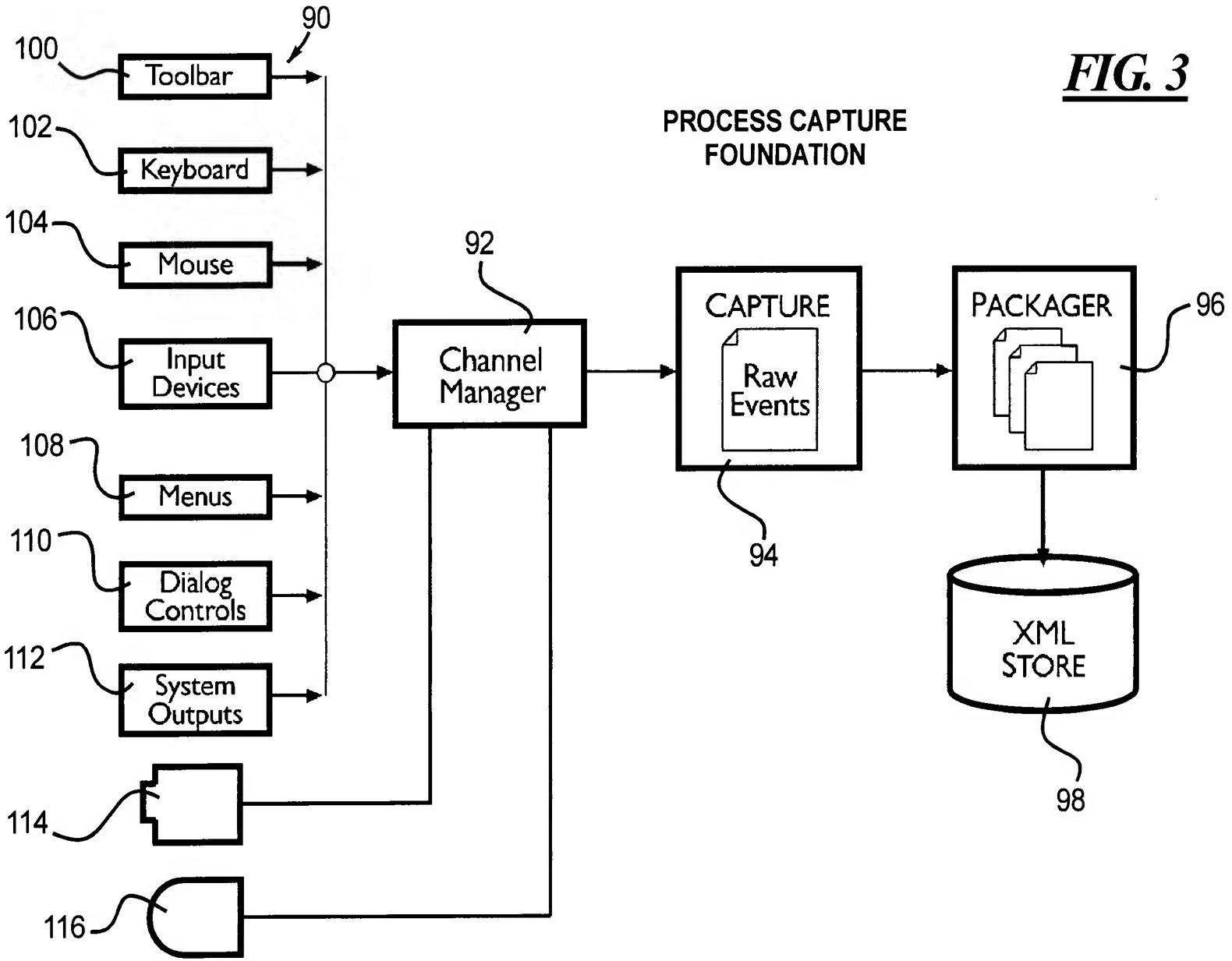

90
100
Toolbar
102
Keyboard
104
Mouse
106
Input Devices
108
Menus
110
Dialog Controls
112
System Outputs
114
116
92
Channel Manager
PROCESS CAPTURE FOUNDATION
CAPTURE
Raw Events
94
PACKAGER
96
XML STORE
98

FIG. 3

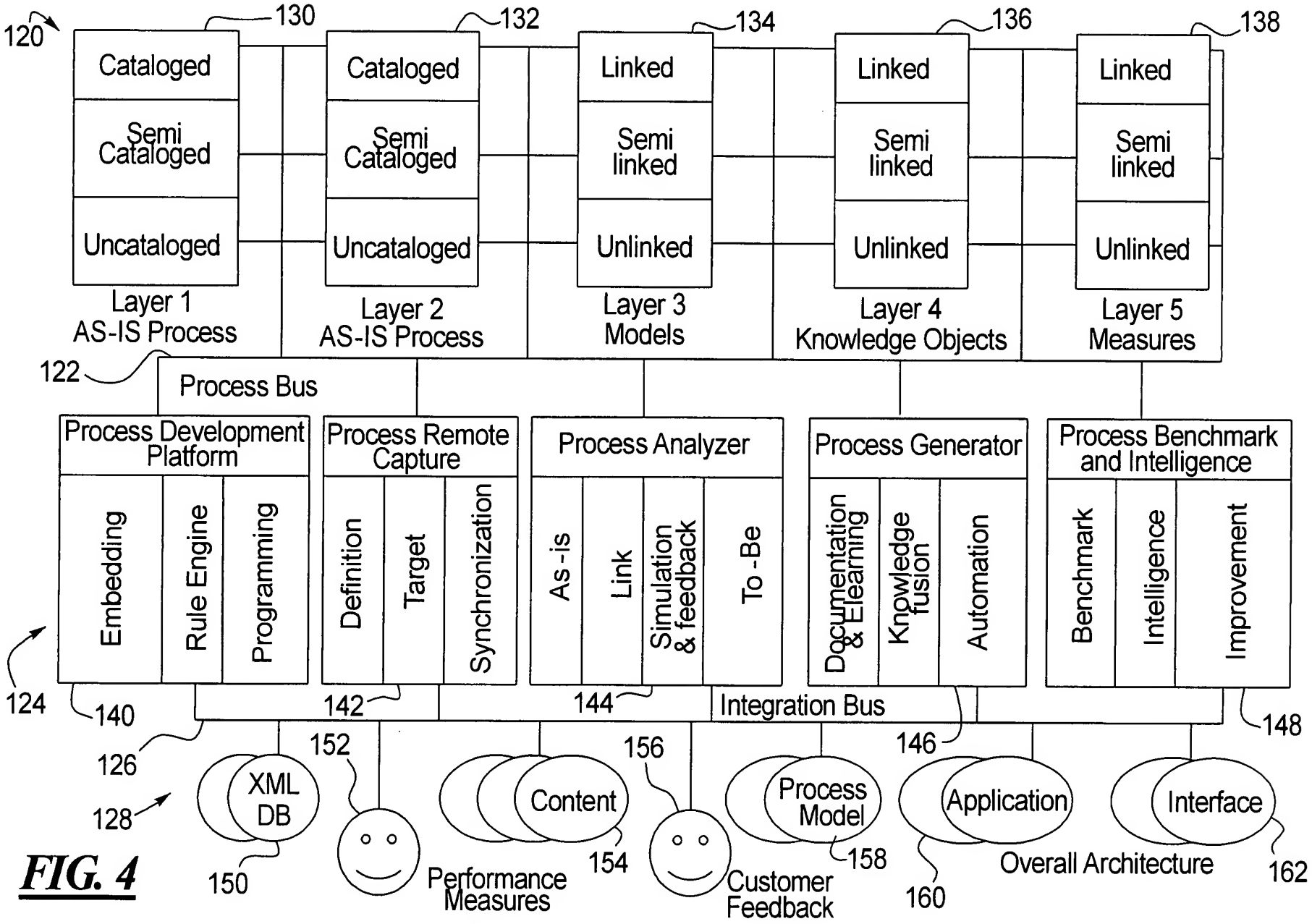

120
130
132
134
136
138
Cataloged
Semi Cataloged
Uncataloged
Cataloged
Semi Cataloged
Uncataloged
Linked
Semi linked
Unlinked
Linked
Semi linked
Unlinked
Linked
Semi linked
Unlinked
Layer 1 AS-IS Process
Layer 2 AS-IS Process
Layer 3 Models
Layer 4 Knowledge Objects
Layer 5 Measures
122
Process Bus
Process Development Platform
Embedding
Rule Engine
Programming
Process Remote Capture
Definition
Target
Synchronization
Process Analyzer
As-is
Link
Simulation & feedback
To-Be
Process Generator
Documentation & Elearning
Knowledge fusion
Automation
Process Benchmark and Intelligence
Benchmark
Intelligence
Improvement
124
140
142
144
Integration Bus
148
126
146
152
156
128
XML DB
Content
Process Model
Application
Interface
150
154
158
160
162
Performance Measures
Customer Feedback
Overall Architecture

FIG. 4

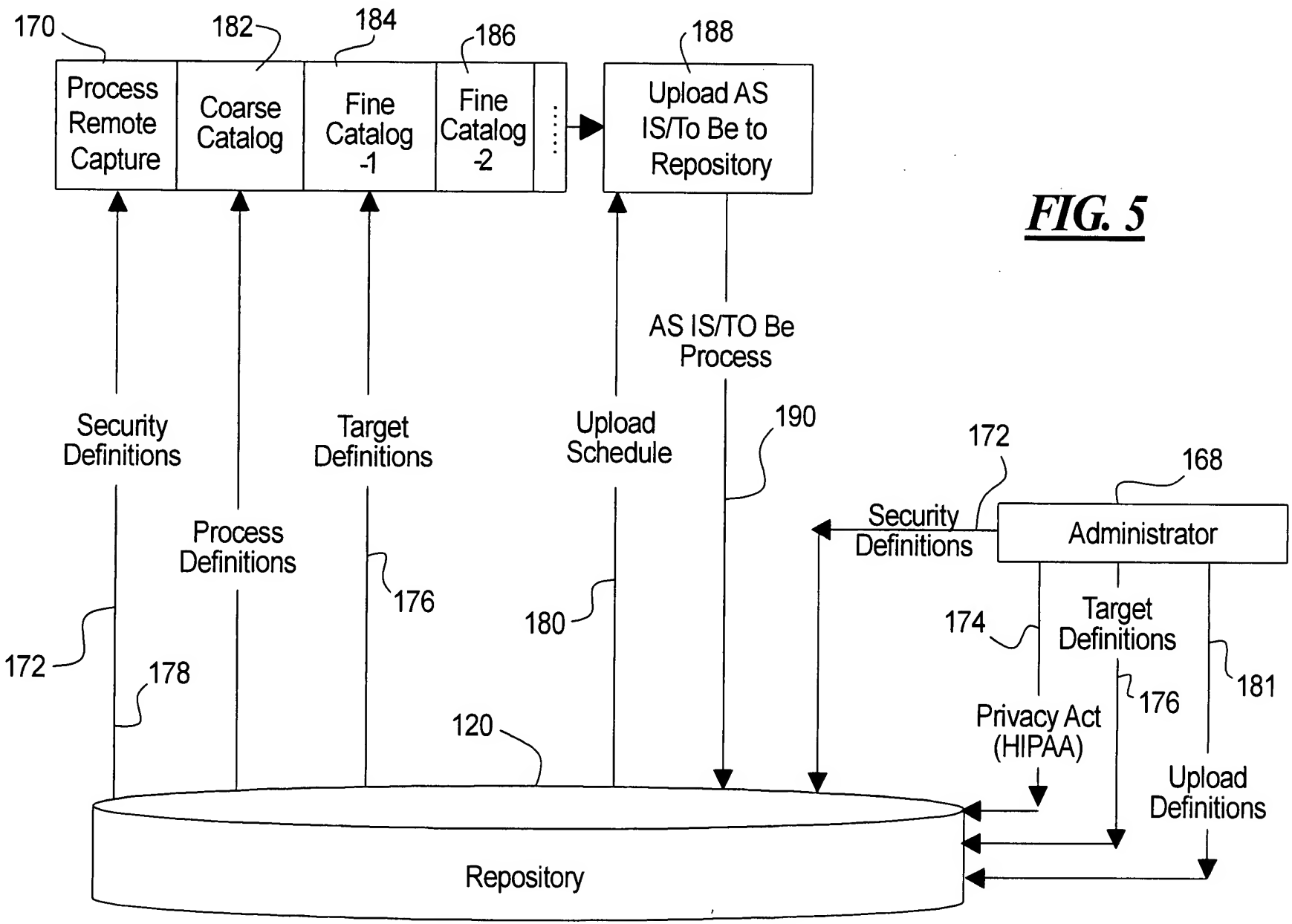

170
182
184
186
188
Process Remote Capture
Coarse Catalog
Fine Catalog -1
Fine Catalog -2
Upload AS IS/To Be to Repository
Security Definitions
Process Definitions
Target Definitions
Upload Schedule
AS IS/TO Be Process
190
172
178
176
180
120
Repository
172
168
Security Definitions
Administrator
174
Target Definitions
176
181
Privacy Act (HIPAA)
Upload Definitions

FIG. 5

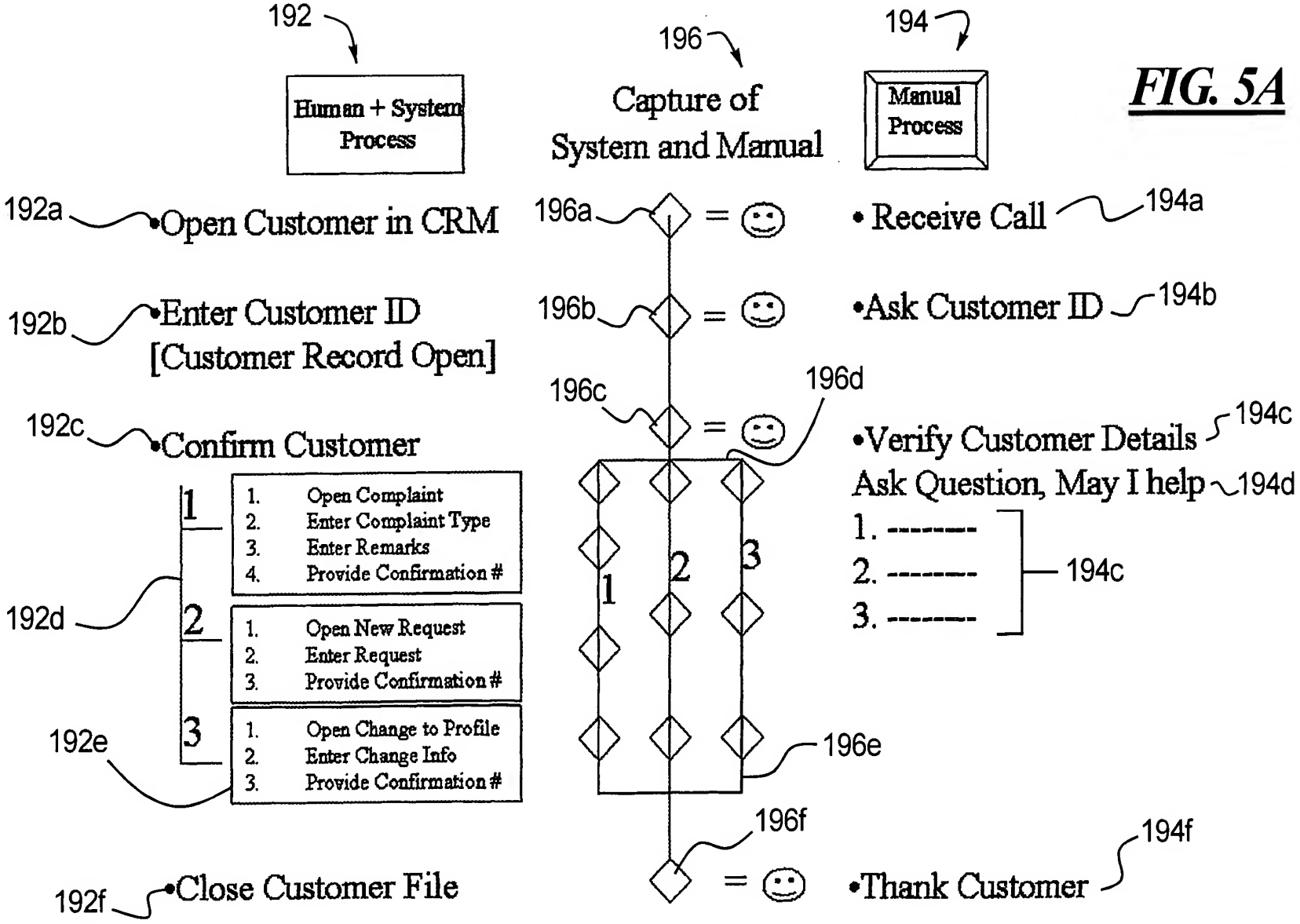

192
Human + System Process
196
Capture of System and Manual
194
Manual Process
192a
•Open Customer in CRM
196a
= ☺
• Receive Call
194a
192b
•Enter Customer ID
[Customer Record Open]
196b
= ☺
•Ask Customer ID
194b
196c
196d
192c
•Confirm Customer
= ☺
•Verify Customer Details
194c
Ask Question, May I help
194d
1
1. Open Complaint
2. Enter Complaint Type
3. Enter Remarks
4. Provide Confirmation #
192d
2
1. Open New Request
2. Enter Request
3. Provide Confirmation #
3
1. Open Change to Profile
2. Enter Change Info
3. Provide Confirmation #
192e
1. -------
2. -------
3. -------
194c
1
2
3
196e
196f
192f
•Close Customer File
= ☺
•Thank Customer
194f

FIG. 5A

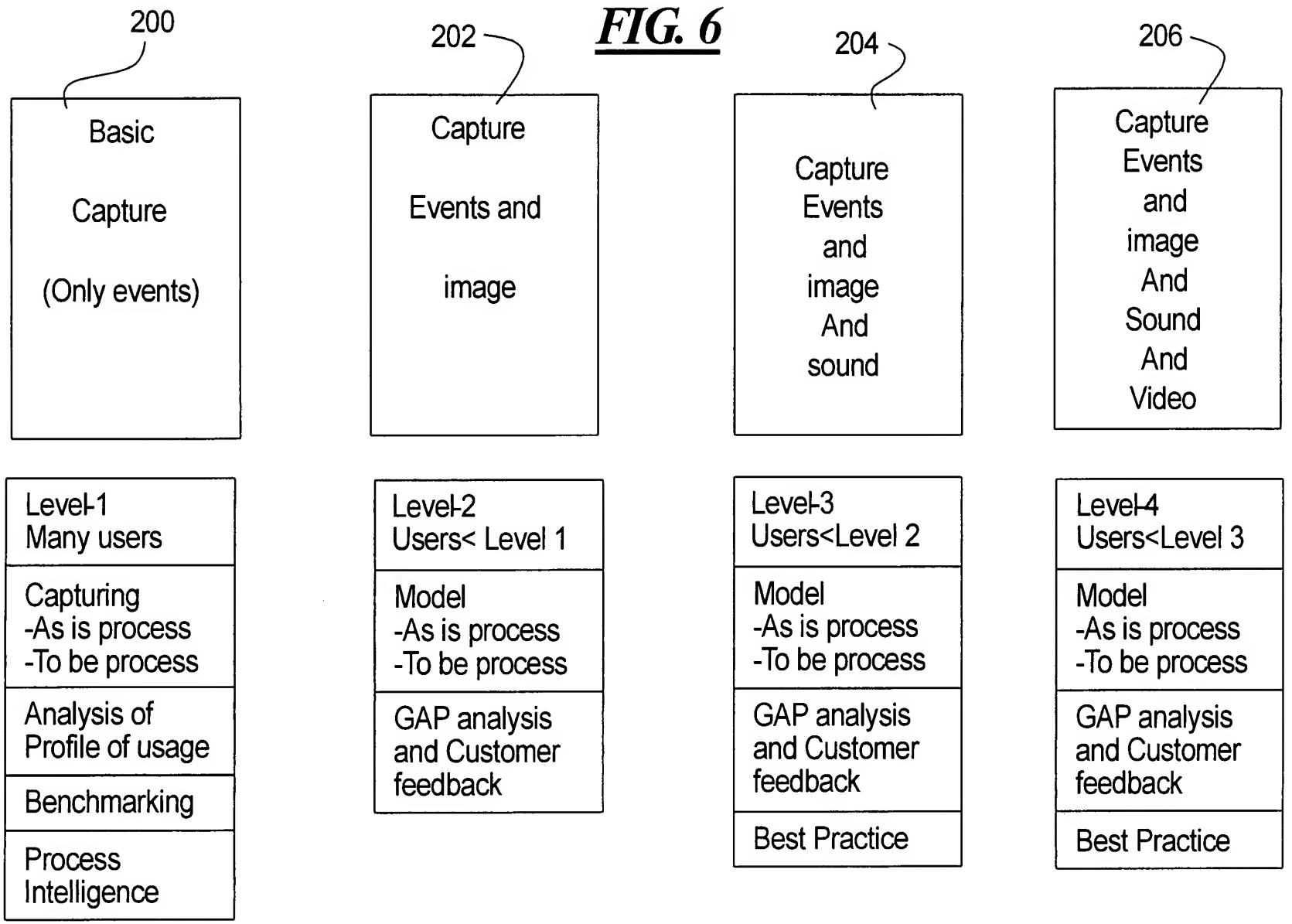

200
Basic
Capture
(Only events)
202
Capture
Events and
image
204
Capture
Events
and
image
And
sound
206
Capture
Events
and
image
And
Sound
And
Video
Level-1
Many users
Capturing
-As is process
-To be process
Analysis of
Profile of usage
Benchmarking
Process
Intelligence
Level-2
Users< Level 1
Model
-As is process
-To be process
GAP analysis
and Customer
feedback
Level-3
Users<Level 2
Model
-As is process
-To be process
GAP analysis
and Customer
feedback
Best Practice
Level-4
Users<Level 3
Model
-As is process
-To be process
GAP analysis
and Customer
feedback
Best Practice

FIG. 6

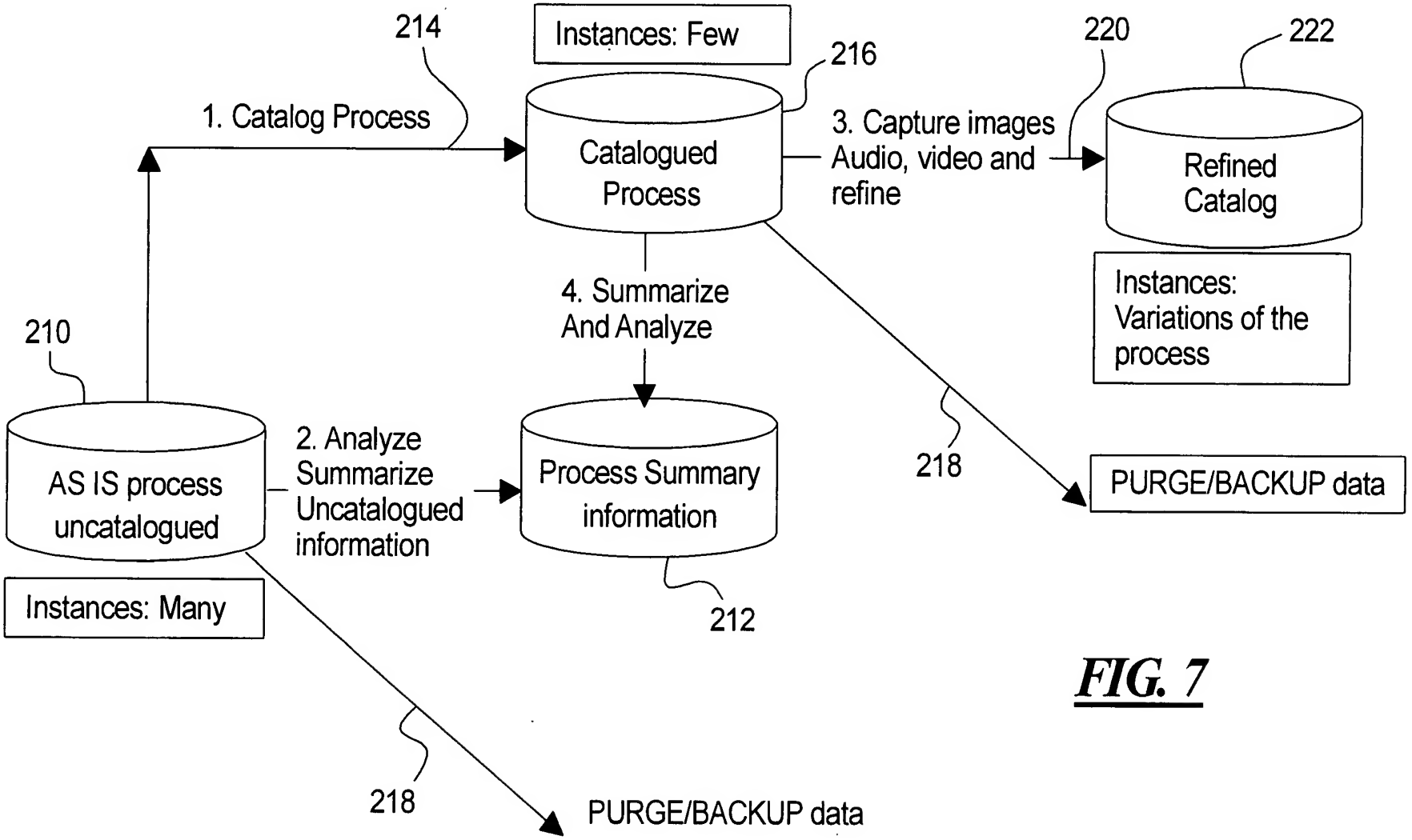

214
Instances: Few
216
220
222
1. Catalog Process
Catalogued Process
3. Capture images Audio, video and refine
Refined Catalog
Instances: Variations of the process
4. Summarize And Analyze
210
AS IS process uncatalogued
2. Analyze Summarize Uncatalogued information
Process Summary information
218
PURGE/BACKUP data
Instances: Many
212
218
PURGE/BACKUP data

FIG. 7

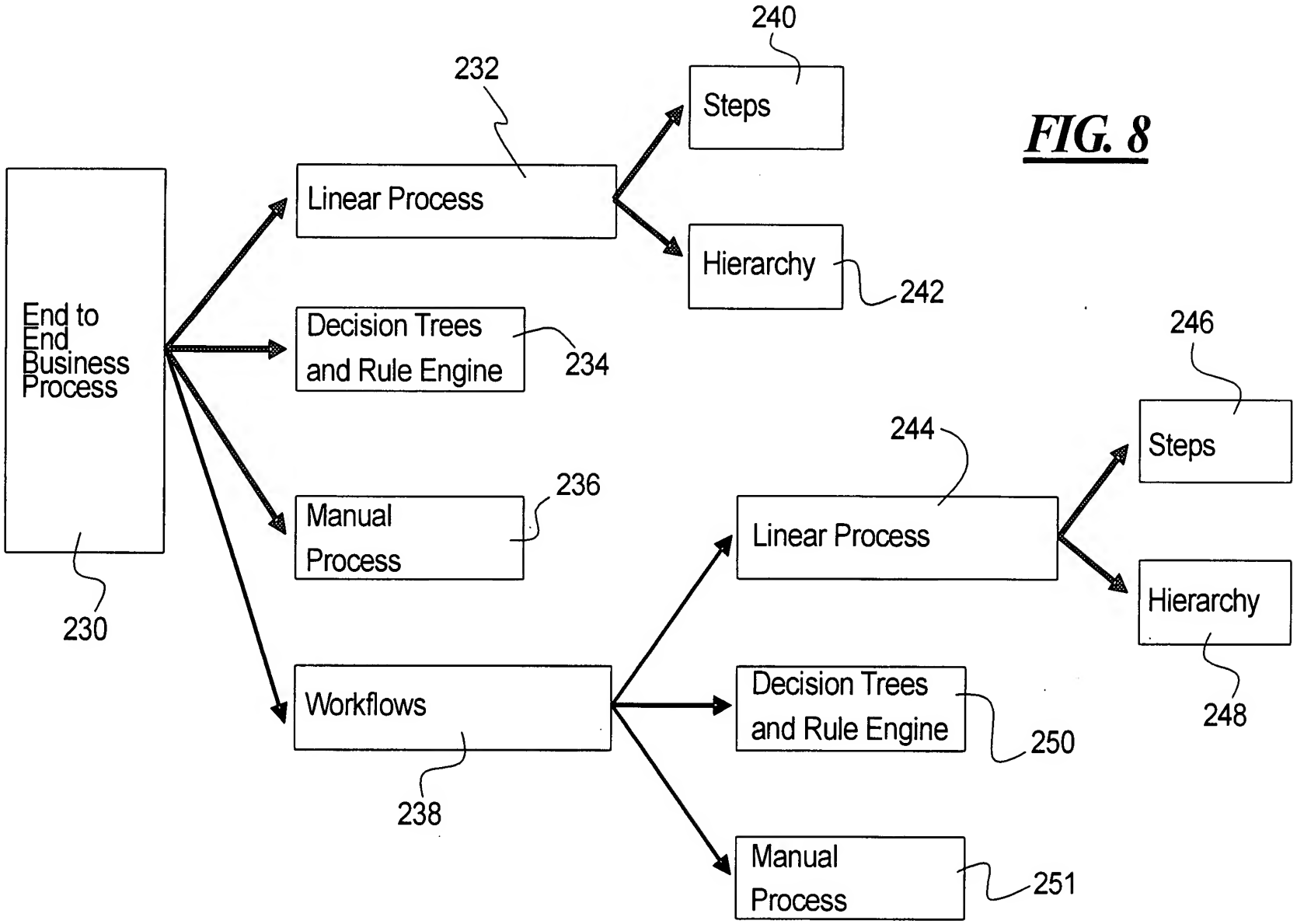

End to End Business Process
230
Linear Process
232
Steps
240
Hierarchy
242
Decision Trees and Rule Engine
234
Manual Process
236
Workflows
238
Linear Process
244
Steps
246
Hierarchy
248
Decision Trees and Rule Engine
250
Manual Process
251

FIG. 8

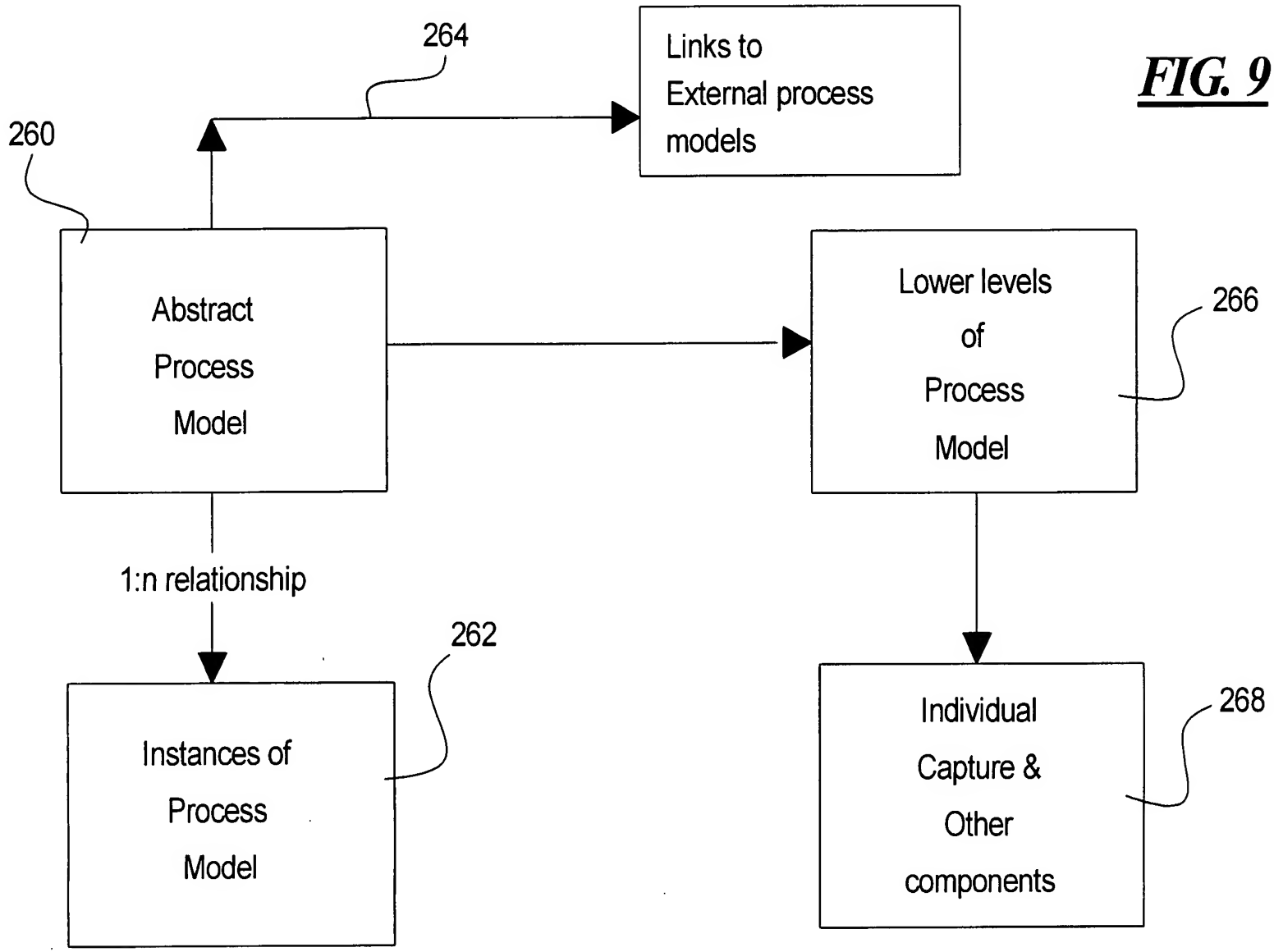

264
Links to
External process
models
260
Abstract
Process
Model
Lower levels
of
Process
Model
266
1:n relationship
262
Instances of
Process
Model
Individual
Capture &
Other
components
268

FIG. 9

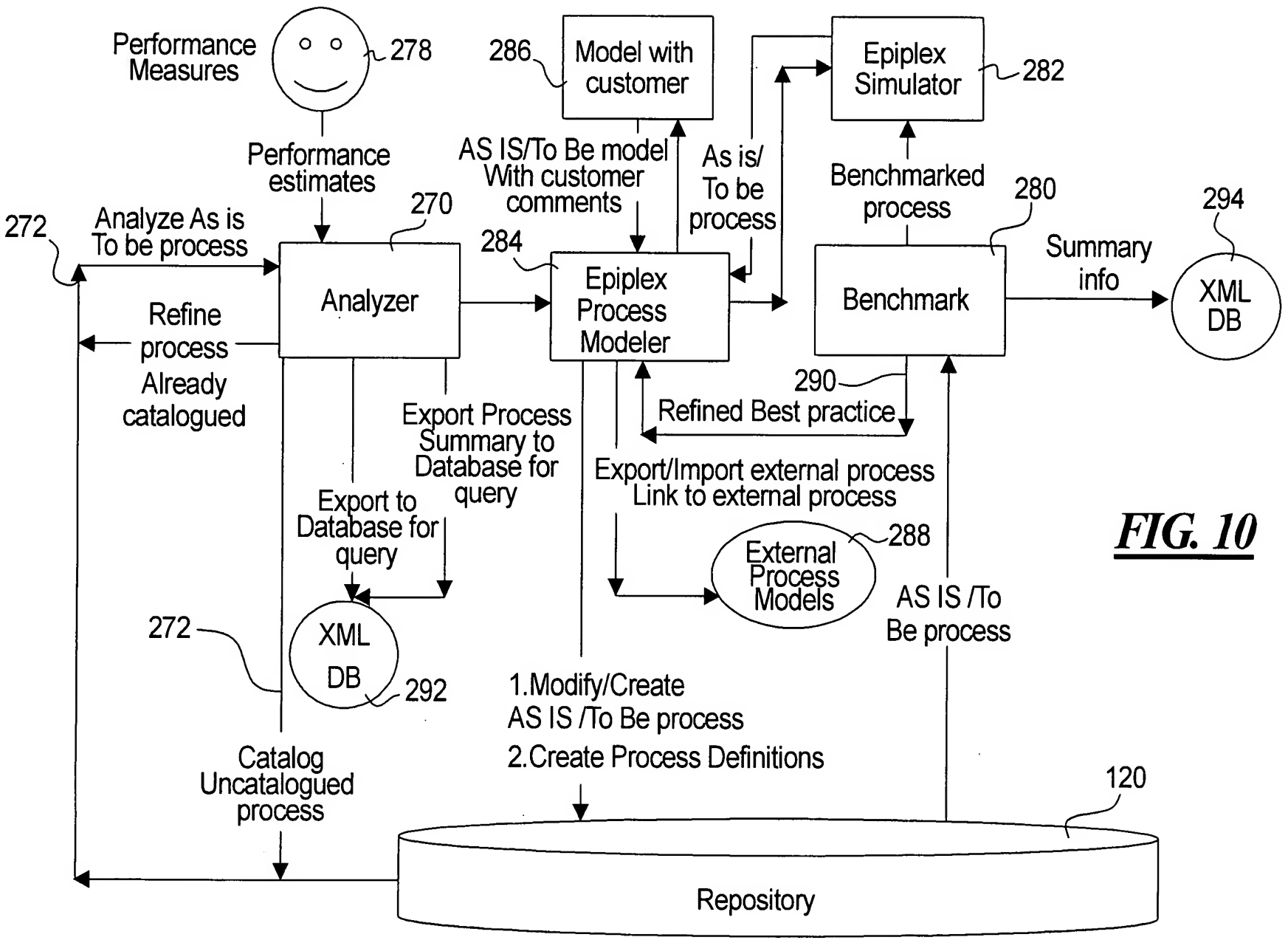

Performance Measures
278
Performance estimates
286
Model with customer
Epiplex Simulator
282
AS IS/To Be model With customer comments
As is/ To be process
Benchmarked process
280
294
272
Analyze As is To be process
270
Analyzer
284
Epiplex Process Modeler
Benchmark
Summary info
XML DB
Refine process
Already catalogued
290
Refined Best practice
Export Process Summary to Database for query
Export/Import external process
Link to external process
Export to Database for query
External Process Models
288
AS IS /To Be process
272
XML DB
292
1.Modify/Create AS IS /To Be process
2.Create Process Definitions
Catalog Uncatalogued process
120
Repository

FIG. 10

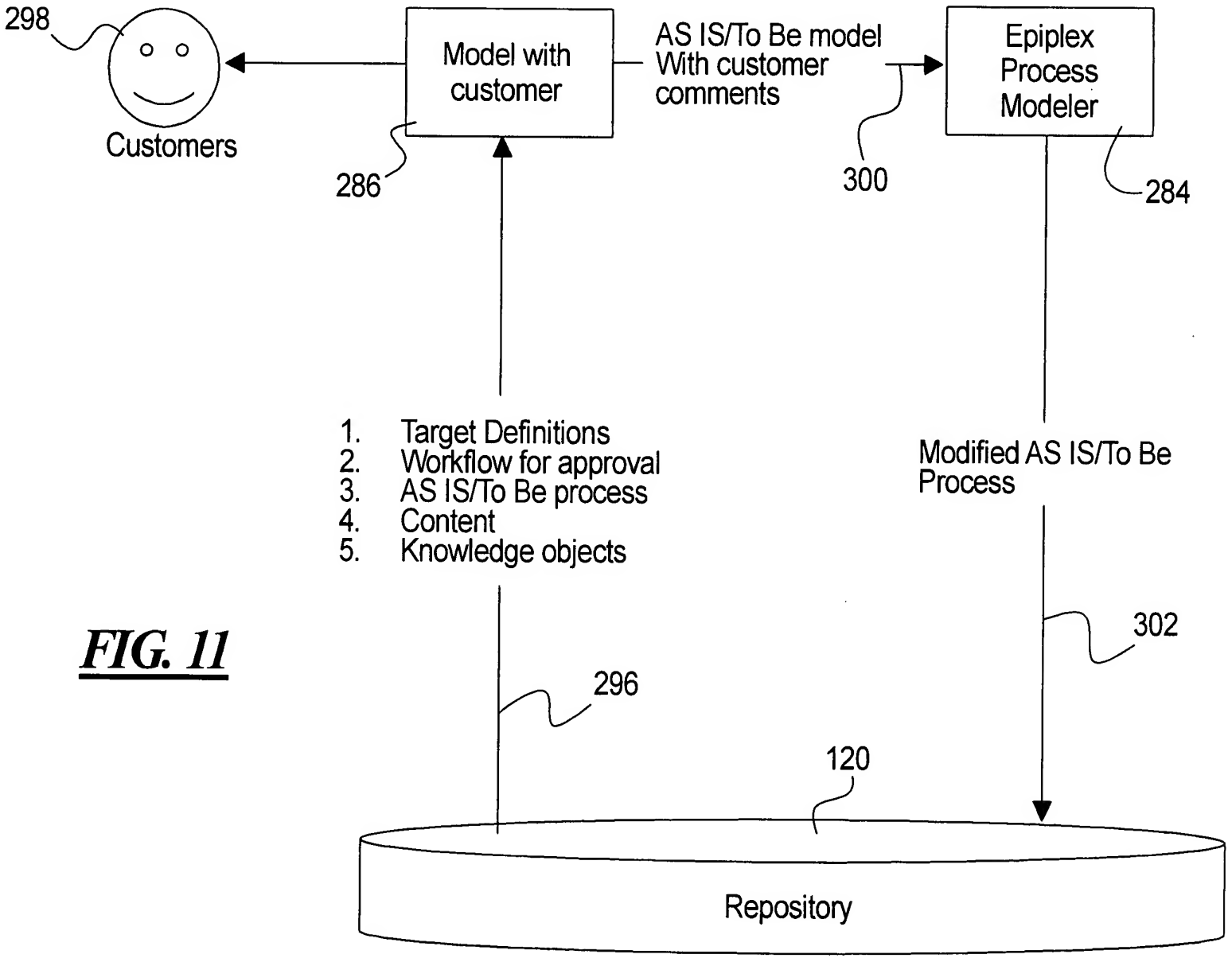

298
Customers
Model with customer
286
AS IS/To Be model With customer comments
300
Epiplex Process Modeler
284
1. Target Definitions
2. Workflow for approval
3. AS IS/To Be process
4. Content
5. Knowledge objects
296
Modified AS IS/To Be Process
302
120
Repository

FIG. 11

FIG. 12

Workflow Header

Capture file nodes	Description
WorkFlow	The root node of the capture file
WorkFlowHeader	The header node that stores the generic information
Name	Name automatically captured from the computer
Author	Author name entered in the capture properties
Organization	Organization name entered in capture properties
Copyright	Copyright name entered in capture properties
Date	Start date of the capture
StartTime	Start date and time of the capture
EndTime	End date and time of the capture
Description	Description of the capture entered in capture properties
Keywords	Key words entered in capture properties
TAPS	Collection of applications encountered in this capture
TAP	Information on one of the applications in this capture
TAPName	Application name
TAPVersion	Application version
TAPPath	Location in the system in which capture was done
TAPExeName	Application executable name.

FIG. 13

Basic Step

Capture file nodes	Description
BasicStep	The root node each event
Id	Serial number of the event
BasicStepTime	Date and time at which this event was performed
ActiveChannelId	The channel used by capture
TAP	Information on the application on which this event was performed
TAPName	Application name
TAPVersion	Application version
TAPPath	Location in the system in which capture was done
TAPExeName	Application executable name.
StandardControl	Details captured by Standard channel
Region	Region of the control on which the event was performed
Left	The screen coordinate (in pixels) of the left of the control
Top	The screen coordinate (in pixels) of the top of the control
Right	The screen coordinate (in pixels) of the right of the control
Bottom	The screen coordinate (in pixels) of the bottom of the control
StdControlName	Name of the control on which the event was performed
StdDialogName	The dialog name on which the event was performed
StdHighLevelEvent	The description of the event that was performed
StdControlCaption	The caption of the control on which the event was performed
StandardControldata	The data specific to the event that was performed
Point	Point at which the click event was performed
X	Horizontal coordinate (in pixels) of the click point
Y	Vertical coordinate (in pixels) of the click point

FIG. 14

Basic Step (contd.)

Capture file nodes	Description
MSAAControl	Details captured by MSAA, Java and IE channel
MSAADialogName	The dialog name on which the event was performed
MSAAName	Name of the control on which the event was performed
MSAAEvent	The description of the event that was performed
MSAAKeyboardShortcut	The keyboard shortcut for the event (if available)
MSAARole	The type of control on which the event was performed
MSAAState	The state of the control on which the event was performed
MSAAValue	The value of the control on which the event was performed
MSAADescription	The description of the control on which the event was performed
MSAALocation	Details of the location of the control
Region	Region of the control on which the event was performed
Left	The screen coordinate (in pixels) of the left of the control
Top	The screen coordinate (in pixels) of the top of the control
Right	The screen coordinate (in pixels) of the right of the control
Bottom	The screen coordinate (in pixels) of the bottom of the control
MSAAMouseButton	The mouse button that was used to perform the event
SpKeyStatus	The state of the Ctrl, Alt, Shift keys when the event was performed
MSAAParentControl	Control that contains the control on which the event was performed
MSAAParentName	Name of the parent control
MSAAKeyboardShortcut	The keyboard shortcut for the parent control (if available)
MSAAParentRole	The type of control
MSAAParentState	State of the parent control
MSAAParentValue	The value of the parent control
MSAAParentDescription	The description of the parent control
MSAAParentLocation	Details of the location of the parent control
Region	Region of the parent control
Left	The screen coordinate (in pixels) of the left of the parent control
Top	The screen coordinate (in pixels) of the top of the parent control
Right	The screen coordinate (in pixels) of the right of the parent control
Bottom	The screen coordinate (in pixels) of the bottom of the parent control
MSAAControldata	The data specific to the event that was performed
Point	Point at which the click event was pe rformed
X	Horizontal coordinate (in pixels) of the click point
Y	Vertical coordinate (in pixels) of the click point
FullImageStore	Details of the image captured.
ImageData	
FileType	
FileName	
FilePath	

FIG. 15

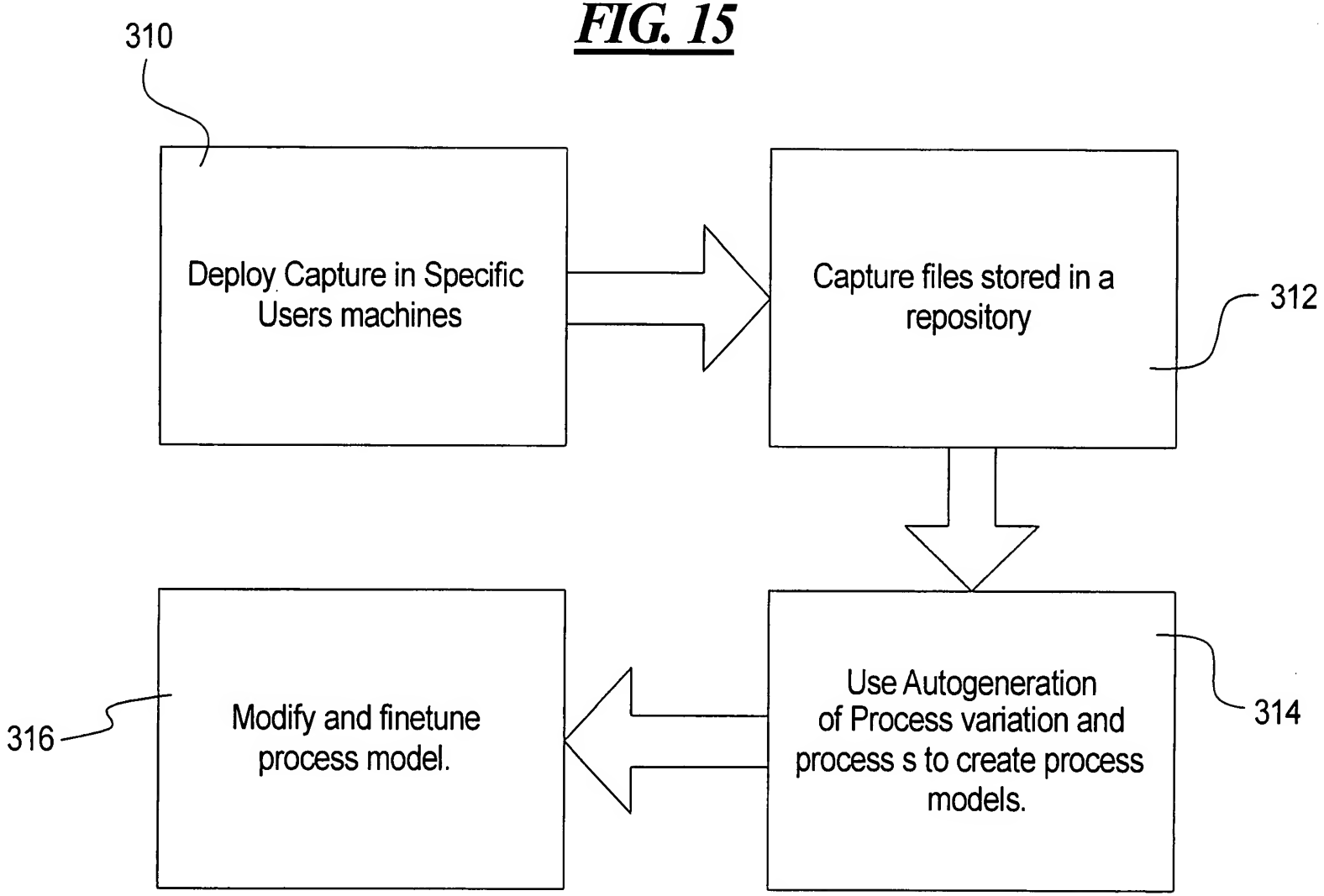

310
Deploy Capture in Specific Users machines
Capture files stored in a repository
312
Use Autogeneration of Process variation and process s to create process models.
314
Modify and finetune process model.
316

FIG. 16

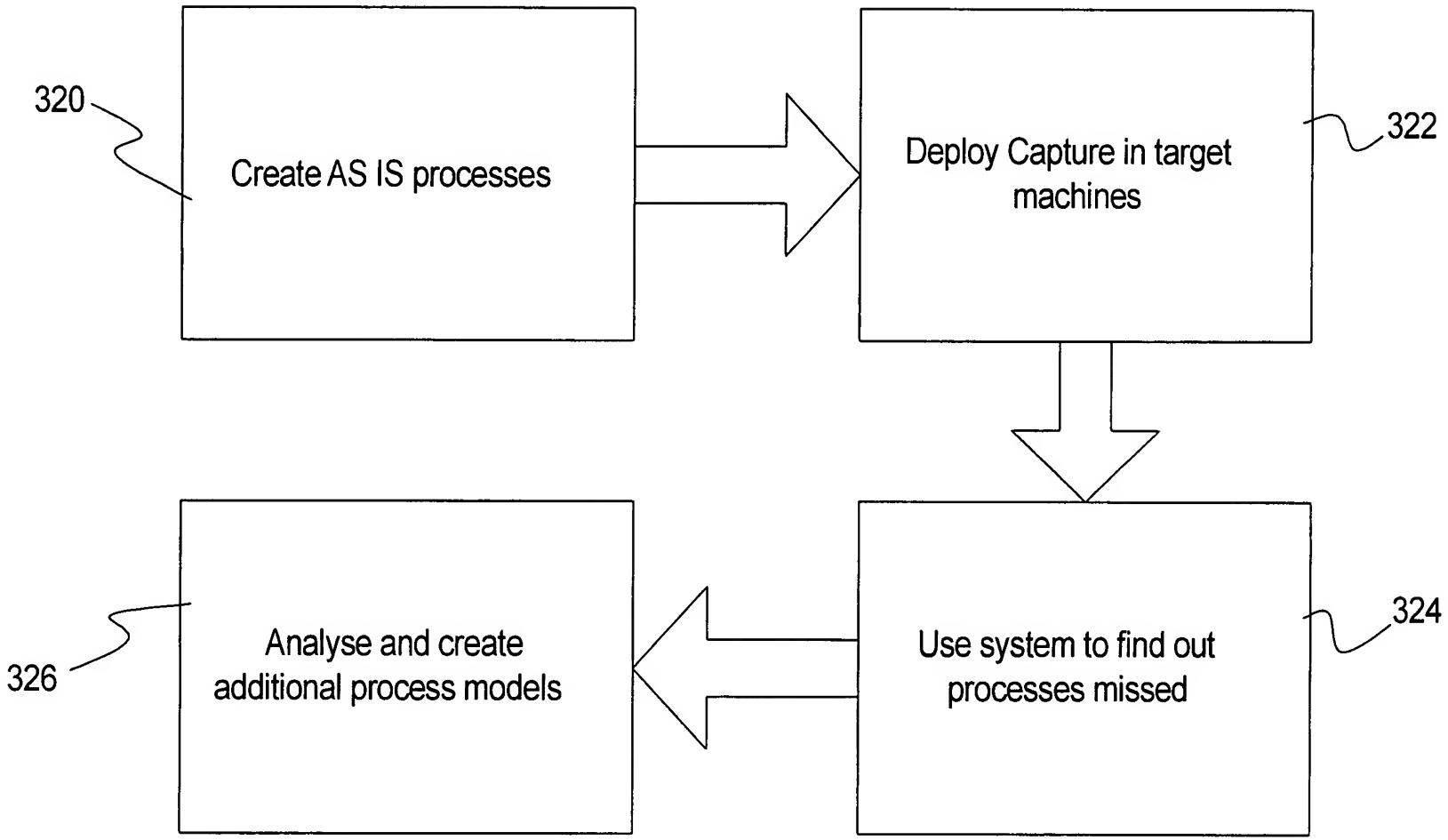
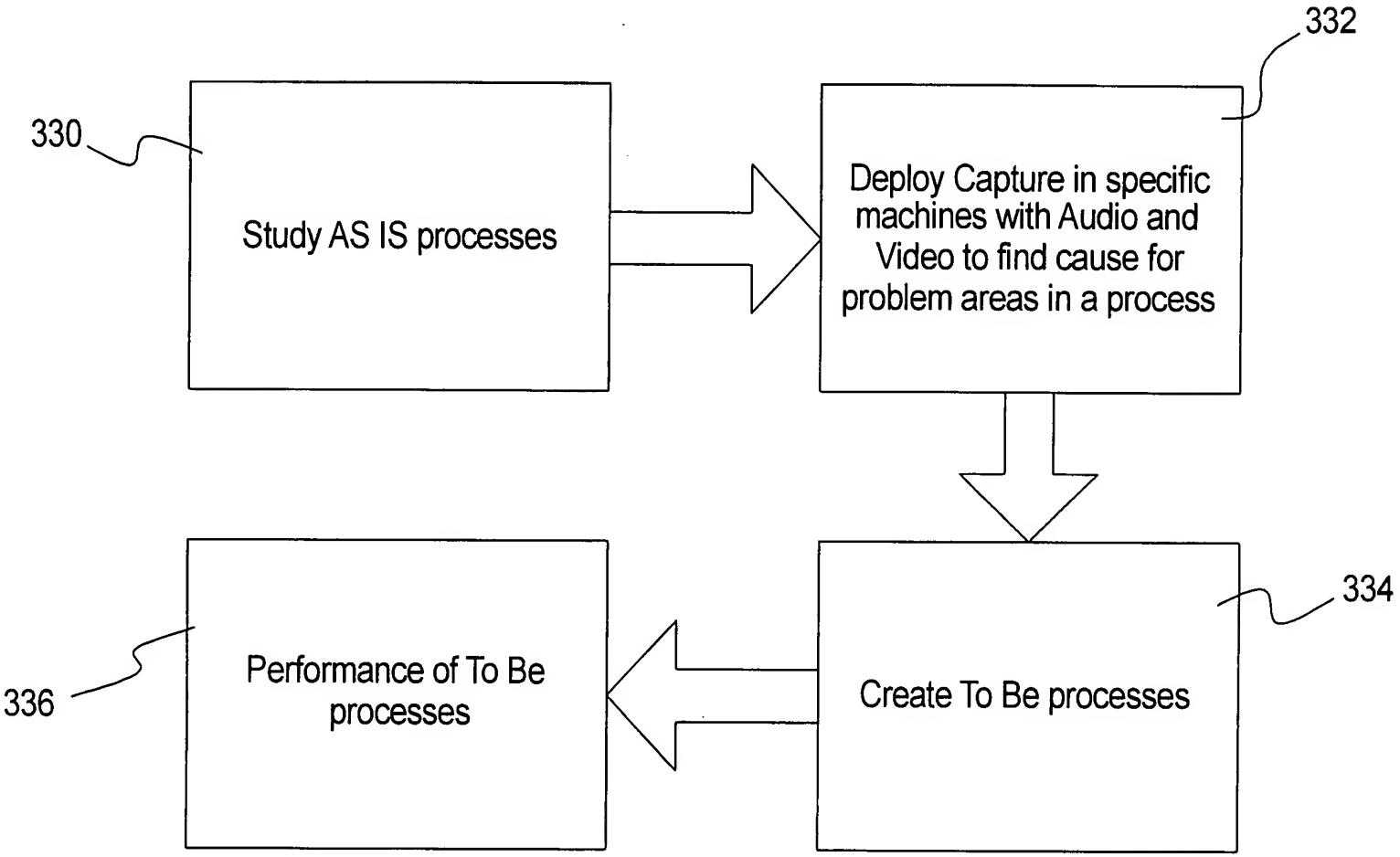

320
Create AS IS processes
Deploy Capture in target machines
322
Use system to find out processes missed
324
Analyse and create additional process models
326

FIG. 17


330
Study AS IS processes
332
Deploy Capture in specific machines with Audio and Video to find cause for problem areas in a process
334
Create To Be processes
336
Performance of To Be processes